

Claims

What is claimed is:

1. A method for identifying changes in television viewing preferences of an individual, comprising the steps of:

obtaining a viewing history indicating a set of programs that have been watched by a user;

establishing at least two portions, VH_1 and VH_K , from said viewing history;

generating a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said at least two viewing history portions, VH_1 and VH_K ; and

comparing said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences.

2. The method of claim 1, wherein said comparing step further comprises the step of comparing the top-N (where N is a positive integer) recommended television programs in each set, S_1 and S_K .

3. The method of claim 1, further comprising the step of generating viewer profiles, P_1 and P_K , corresponding to said at least two portions, VH_1 and VH_K .

4. The method of claim 1, further comprising the step of presenting a user with a set of recommended programs based on one or both of said sets of programs, S_1 and S_K .

5. The method of claim 1, further comprising the step of presenting a user with a union set of recommended programs based on said sets of programs, S_1 and S_K .

6. The method of claim 1, further comprising the step of presenting a user with an intersection set of recommended programs based on said sets of programs, S_1 and S_K .

5

7. The method of claim 1, further comprising the step of presenting a user with a set of recommended programs, S_K , based on a more recent sub-set of said viewing history.

10 8. The method of claim 1, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by uniformly randomly sampling sub-sets of television programs from said viewing history.

9. The method of claim 1, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by selecting a time span that is less than the entire time period covered by the viewing history.

20 10. The method of claim 9, wherein said selected time span is an earlier similar time period to a given time interval.

11. A method for managing the storage of a viewer history in a television program recommender, comprising the steps of:

25 obtaining a viewing history indicating a set of programs that have been watched by a user;

establishing at least two portions, VH_1 and VH_K , from said viewing history;

30 generating viewer profiles, P_1 and P_K , corresponding to said at least two portions, VH_1 and VH_K ;

generating a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said viewer profiles, P_1 and P_K ;

comparing said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences; and deleting a portion of said viewing history if said sets of program recommendation scores, S_1 and S_K are substantially similar.

12. The method of claim 11, wherein said comparing step further comprises the step of comparing the top-N (where N is a positive integer) recommended television programs in each set, S_1 and S_K .

13. The method of claim 11, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by uniformly randomly sampling sub-sets of television programs from said viewing history.

14. The method of claim 11, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by selecting a time span that is less than the entire time period covered by the viewing history.

15. The method of claim 14, wherein said selected time span is an earlier similar time period to a given time interval.

16. A system for identifying changes in television viewing preferences of an individual, comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

obtain a viewing history indicating a set of programs that have been watched by a user;

establish at least two portions, VH_1 and VH_K , from said viewing history;

generate a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said at least two viewing history portions, VH_1 and VH_K ; and

5 compare said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences.

17. The system of claim 16, wherein said processor compares the top-N (where N is a positive integer) recommended television
10 programs in each set, S_1 and S_K .

18. The system of claim 16, wherein said processor is further configured to generate viewer profiles, P_1 and P_K , corresponding to said at least two portions, VH_1 and VH_K .

19. The system of claim 16, wherein said processor is further configured to present a user with a set of recommended programs based on one or both of said sets of programs, S_1 and
15 S_K .

20. The system of claim 16, wherein said processor is further configured to present a user with a union set of recommended programs based on said sets of programs, S_1 and S_K .

21. The system of claim 16, wherein said processor is further configured to present a user with an intersection set of recommended programs based on said sets of programs, S_1 and S_K .

22. The system of claim 16, wherein said processor is
30 further configured to present a user with a set of recommended programs, S_K , based on a more recent sub-set of said viewing history.

23. The system of claim 16, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by uniformly randomly sampling sub-sets of television programs from said viewing history.

5

24. The system of claim 16, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by selecting a time span that is less than the entire time period covered by the viewing history.

10

25. The system of claim 24, wherein said selected time span is an earlier similar time period to a given time interval.

26. A system for managing the storage of a viewer history in a television program recommender, comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

obtain a viewing history indicating a set of programs that have been watched by a user;

establish at least two portions, VH_1 and VH_K , from said viewing history;

generate viewer profiles, P_1 and P_K , corresponding to said at least two portions, VH_1 and VH_K ;

generate a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said viewer profiles, P_1 and P_K ;

compare said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences; and

delete a portion of said viewing history if said sets of program recommendation scores, S_1 and S_K are substantially similar.

27. The system of claim 26, wherein said processor compares the top-N (where N is a positive integer) recommended television programs in each set, S_1 and S_K .

5 28. The system of claim 26, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by uniformly randomly sampling sub-sets of television programs from said viewing history.

10 29. The system of claim 26, wherein said at least two portions, VH_1 and VH_K , from said viewing history are obtained by selecting a time span that is less than the entire time period covered by the viewing history.

15 30. The system of claim 29, wherein said selected time span is an earlier similar time period to a given time interval.

20 31. An article of manufacture for identifying changes in television viewing preferences of an individual, comprising:
a computer readable medium having computer readable code means embodied thereon, said computer readable program code means comprising:

a step to obtain a viewing history indicating a set of programs that have been watched by a user;

25 a step to establish at least two portions, VH_1 and VH_K , from said viewing history;

a step to generate a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said at least two viewing history
30 portions, VH_1 and VH_K ; and

a step to compare said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences.

32. An article of manufacture for managing the storage of a viewer history in a television program recommender, comprising:

a computer readable medium having computer readable code means embodied thereon, said computer readable program code means comprising:

a step to obtain a viewing history indicating a set of programs that have been watched by a user;

a step to establish at least two portions, VH_1 and VH_K , from said viewing history;

a step to generate viewer profiles, P_1 and P_K , corresponding to said at least two portions, VH_1 and VH_K ;

a step to generate a corresponding set of program recommendation scores, S_1 and S_K , for a set of programs in a given time interval based on said viewer profiles, P_1 and P_K ;

a step to compare said sets of program recommendation scores, S_1 and S_K , to identify a change in said viewer preferences; and

a step to delete a portion of said viewing history if said sets of program recommendation scores, S_1 and S_K are substantially similar.